device includes a processor. The processor is configured to perform at least part of the identification step and the audio output step.

[0158] As described above, the electronic device according to various embodiments of the present disclosure supports unbalanced-type and balanced-type output devices, and thus increases user convenience. In particular, the electronic device supports a balanced-type output device and thus provides users with a high quality audio.

[0159] The term "module" according to the embodiments of the disclosure, refers to, but is not limited to, a unit of one of software, hardware, and firmware or any combination thereof. The term "module" may be used interchangeably with the terms "unit," "logic," "logical block," "component," or "circuit." The term "module" may denote a smallest unit of component or a part thereof. The term "module" may be the smallest unit of performing at least one function or a part thereof. A module may be implemented mechanically or electronically. For example, a module may include at least one of an application-specific integrated circuit (ASIC) chip, field-programmable gate arrays (FPGAs), and programmable-logic device known or to be developed for certain operations.

[0160] According to various embodiments of the present disclosure, the devices (e.g. modules or their functions) or methods may be implemented by computer program instructions stored in a computer-readable storage medium. In the case that the instructions are executed by the processor **120**, the processor **120** may execute the functions corresponding to the instructions. The computer-readable storage medium may be the memory **130**. At least a part of the programming module may be implemented (e.g. executed) by the processor **120**. At least a part of the programming module may include modules, programs, routines, sets of instructions, and processes for executing the at least one function.

[0161] The computer-readable storage medium includes magnetic media such as a floppy disk and a magnetic tape, optical media including a compact disc (CD) ROM and a DVD ROM, a magneto-optical media such as a floptical disk, and the hardware device designed for storing and executing program commands such as ROM, RAM, and flash memory. The programs commands include the language code executable by computers using the interpreter as well as the machine language codes created by a compiler. The aforementioned hardware device can be implemented with one or more software modules for executing the operations of the various embodiments of the present disclosure.

[0162] The module or programming module of the present disclosure may include at least one of the aforementioned components with omission of some components or addition of other components. The operations of the modules, programming modules, or other components may be executed in series, in parallel, recursively, or heuristically. Also, some operations may be executed in different order, omitted, or extended with other operations.

[0163] Although various embodiments of the present disclosure have been described using specific terms, the specification and drawings are to be regarded in an illustrative rather than a restrictive sense in order to help understand the present disclosure. It is obvious to those skilled in the art that various modifications and changes can be made thereto without departing from the broader spirit and scope of the disclosure. Therefore, the scope of the present disclosure is defined, not by the detailed description and embodiments, but by the following claims and their equivalents.

What is claimed is:

1. An electronic device, comprising:
- a housing;
- an opening formed in one side of the housing;
- a hole communicating with the opening;
- a receptacle, placed inside the hole, for receiving one of first, second and third external connectors; and
- a circuit electrically connected to the receptacle,
- wherein
  - each of the first and second connectors comprises a first number of contacts;
  - the third external connector comprises a second number of contacts less than the first number of contacts;
  - the circuit identifies which one of the first, second and third external connectors is inserted into the receptacle; provides, when the first external connector is inserted into the receptacle, an audio output signal to the first external connector in a first manner; provides, when the second external connector is inserted into the receptacle, an audio output signal to the second external connector in a second manner which differs from the first manner; and provides, when the third external connector is inserted into the receptacle, an audio output signal to the third external connector in a third manner which differs from the first and second manners.

2. The electronic device of claim **1**, wherein the first number of contacts is four, and
- the second number of contacts is three.

3. The electronic device of claim **1**, wherein
- the first external connector is connected to an external audio device including first and second speakers; and
- the circuit provides, when the first external connector is inserted into the receptacle, audio output signals to the first and second speakers via two of the first number of contacts of the first external connector.

4. The electronic device of claim **3**, wherein the circuit receives, when the first external connector is inserted to the receptacle, audio output signals from the external audio device, via the two contacts and another contact from among the first number of contacts of the first external connector.

5. The electronic device of claim **1**, wherein
- the second external connector is connected to an external audio device including first and second speakers; and
- the circuit provides, when the second external connector is inserted to the receptacle, a first audio output signal to the first speaker via two of the first number of contacts of the second external connector and a second audio output signal to the second speaker via two other contacts of the first number of contacts.

6. The electronic device of claim **1**, wherein
- the circuit comprises a processor; and
- the processor performs at least part of the identification of which one of the first, second and third external connectors is inserted into the receptacle and provides the audio output signal.

7. The electronic device of claim **1**, wherein the circuit measures voltage or impedance via at least part of the contacts of the first, second or third external connector inserted to the receptacle, and identifies a type of the external connector inserted into the receptacle, based on the measured voltage or impedance.